

JPRS 78578

22 July 1981

Worldwide Report

ENVIRONMENTAL QUALITY

No. 316



FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

22 July 1981

WORLDWIDE REPORT ENVIRONMENTAL QUALITY

No. 316

CONTENTS

ASIA

AUSTRALIA

- South Mounts Court Challenges on Murray River Issue
(THE AUSTRALIAN, 16 Jun 81, THE AGE, 18 Jun 81) 1
- Action Against NSW, by Peter Blunden
Threat to Victoria, by Peter Roberts

INDIA

- Delhi Plans To Promote Social Forestry Told
(THE HINDU, 15 Jun 81) 3
- Panel To Review Environmental Laws Proposed
(THE TIMES OF INDIA, 23 Jun 81) 4
- Briefs
Dust Particles Create Health Hazard 6
Conservation Plans Noted 6

INDONESIA

- Briefs
Polluted Fish Poison 150 7

MALAYSIA

- Stringent Requirements Imposed by Pesticides Board
(NEW STRAITS TIMES, 20 May 81) 8
- Rubber, Palm Oil Effluent Pollute Environment
(THE CEYLON DAILY NEWS, 24 Jun 81) 9

NEPAL

Importance of Forest Conservation (THE RISING NEPAL, 28 Jun 81)	11
Deforestation Seen as Serious Threat to Dams (THE RISING NEPAL, 23 Jun 81)	13
Briefs	
Afforestation Program Started	14
Tamagadhi Afforestation Program	14

NEW ZEALAND

Environmentalists Gain Access to Aluminum Smelter Documents (THE EVENING POST, 12, 16, 17 Jun 81)	15
Appeals Court Hearing Limited Access Granted Sensitive Legal Issue, by David Mulgan	
Environment Commission Raps Proposed Synthetic Fuel Plant (Various sources, various dates)	18
Three Main Impacts Cited, by Michael Field People's Rights Eroded Lead-Free Fuel Advocated Prime Minister's Rebuttal Historic Decision Seen, by Ted Reynolds	
Official Faults 'Fast-Track' Development Procedures (THE NEW ZEALAND HERALD, 4 Jun 81)	22
Auckland Studying Waste-Free Trash Recycling System (THE EVENING POST, 15 Jun 81)	23
OECD Review of New Zealand Environmental Policy Backed (THE NEW ZEALAND HERALD, 17 Jun 81)	24
Conservation Groups Resolve Differences Over Merger (THE EVENING POST, 15 Jun 81)	25
Ecology Report Gives Qualified NOD to Synthetic Fuel (THE NEW ZEALAND HERALD, 10 Jun 81)	26
End to Mining Act Clause on Prospecting Licenses Seen (THE NEW ZEALAND HERALD, 11 Jun 81)	28
Ecology Team Auditing Proposed Northland Forestry Port (THE NEW ZEALAND HERALD, 12, 16 Jun 81)	29
Impact on Roads Weighed Regional Benefits Sought	

Mining Contamination of Coromandel Streams To Be Tested (THE NEW ZEALAND HERALD, 10 Jun 81)	30
PEOPLE'S REPUBLIC OF CHINA	
Liaoning Province Environmental Protection Efforts Reported (LIAONING RIBAO, 9 May 81)	31
Shenyang, Dalian Antipollution Drive Chemical Plant Pollutant Control, by Yang Jizhu Antipollution Efforts Urged Drinking Water Contamination Resolved, by Wang Jinrui, Jin Hongcai	
Chromium in Waste Water Now Under Control at Taiyuan Plant (Guo Yanling, Xue Gaiyu; SHANXI RIBAO, 10 May 81)	35
Environmental Work Conference Held in Taiyuan (SHANXI RIBAO, 27 May 81)	37
Briefs	
Guangdong Desalinization Equipment	38
Yellow Sea Oil Pollution	38
TAIWAN	
Noise Pollution Caused by Motor Vehicles (THE CHINA POST, 6 Jun 81)	39
Briefs	
Crop Contamination	41
SUB-SAHARAN AFRICA	
TANZANIA	
Fertilizer Plant Reportedly Causing Air Pollution (DAILY NEWS, 27 Jun 81)	42
WEST EUROPE	
CYPRUS	
Central Authority To Run Water Supply (CYPRUS MAIL, 20 Jun 81)	43
FINLAND	
Chemical Air Spraying of Forests To End (UUSI SUOMI, 16 Jun 81)	45

Expert Discusses Increasing Acidification of Waters
(Antti Patila; HELSINGIN SANOMAT, 25 Jun 81) 47

Briefs
Soil Conservation Law Passed 51

TURKEY

Remedy for Golden Horn Pollution Stressed
(DUNYA, 6 Jun 81) 52

SOUTH MOUNTS COURT CHALLENGES ON MURRAY RIVER ISSUE

Action Against NSW

Canberra THE AUSTRALIAN in English 16 Jun 81 p 3

[Article by Peter Blunden]

[Text]

THE bitter Murray River wrangle has flared again after revelations by the South Australian Government that it is planning a new court challenge against NSW.

Meanwhile the mouth of the River Murray, at Goolwa in South Australia, has silted up for the second time, stopping flow into the sea and trapping "stale" water in the stagnant lower reaches.

The new row erupted after the release by the NSW Minister for Water Resources, Mr Gordon, of a 10-page statement accusing the South Australian Government of mounting a "well orchestrated and emotional campaign" over the quality of River Murray water.

Mr Gordon claims the NSW Government has been the target for politically motivated and unfair criticism from both South Australian and federal parliamentarians over its water resources policies.

He described as "inaccurate and unjust" claims that NSW was primarily responsible for rising salinity levels and the various other problems confronting the Murray and its tributaries.

"This State has acted responsibly in the past and is not prepared to halt the use of water for irrigation on the unregulated rivers in the western part of the State," Mr Gordon said.

"South Australia, as the largest contributor of salt inflow to the Murray, should step up its programs for salinity mitigation."

The South Australian Minister for Water Resources, Mr Arnold, has announced that his State would mount a new challenge against NSW under the NSW Environment Planning and Assessment Act. It will be held in the NSW Land and Environment Court.

The State Attorney-General's Department is investigating the best way to approach this challenge, under which South Australia will oppose further upstream water diversion.

Increased irrigation would be responsible for higher salinity.

The challenge comes after legislation passed in NSW blocked South Australia from opposing the further issuing of licences.

But the NSW Government says South Australia is exaggerating the extent of irrigation upstream.

The South Australian Opposition has accused the Government of taking too soft a line and says it is time to adopt a hard-line policy.

A move in State Parliament late last week to put forward the Labor Party's views on the matter finished in a skirmish when the party leader, Mr John Bannon, was not permitted to address the House because he sat down when it was his turn to speak.

When the party's spokesman on water resources, Mr G. Keneally, interjected he was "named" and later suspended.

Threat to Victoria

Melbourne THE AGE in English 18 Jun 81 p 20

[Article by Peter Roberts]

[Text]

South Australia yesterday switched its offensive against deteriorating water quality in the Murray River from new South Wales to Victoria.

The State's Minister for Water Resources, Mr Arnold, who is a riverland irrigation farmer, threatened action against Victoria if it granted more irrigation licences planned for the Murray.

Mr Arnold said South Australia would bring immediate pressure to bear on Victoria if it went ahead with its plans. He would not give details of what his government would do.

Earlier this month the SA Government backed down on threats to cut off natural gas supplies to New South Wales if that State extended irrigation in the Murray basin.

South Australian governments have long campaigned for a clean-up of the Murray which in bad years supplies up to 87 per cent of Adelaide's drinking water. A former Liberal Premier, Mr Hall, was defeated at the polls on the water issue.

Assessments of how bad Murray water is, seem to depend on where you live. Politicians and water planners in Victoria and NSW say the river is not as bad as it is made out.

"Water quality is always relative," according to the Victorian State Rivers and Water Supply Commissioner, Mr Bill Brownfield. "Adelaide's water is fresher than that of many big cities in the world and is perfectly safe."

The director of the Centre for Environmental Studies at Adelaide University, Dr John Hales, does not agree. He said yesterday that river quality was bad and would get worse before it got better.

"Sea water is 33,000 parts per

million of salt," he said. "In some parts the Murray is way up towards that. No, it is not good at the moment, far from it, it is very, very bad."

Yesterday salinity at Murray Bridge where water is pumped to Adelaide, was 582 parts per million. The World Health Organisation has set 500 as the desirable upper limit, although effects in healthy humans are not apparent until higher levels.

Further downstream at Geelong where water is pumped to country centres, salinity was 1000 parts per million. Barrages preventing the Murray from flowing to the sea have been closed since October and the salinity is expected to rise before it falls.

A bigger problem is the amount of solid matter in tap water in the as yet unfiltered southern half of the city. It takes a high dose of chlorine to kill bacteria clinging to particles suspended in the water.

The State's Engineering and Water Supply Department is planning a research project on the effects of chlorine in the water. Chlorine forms a group of chemicals known as trihalomethanes when dissolved in water, and these have an unknown effect on the human system.

Salt enters the Murray from irrigation areas in SA, NSW and Victoria and from saline groundwater seeping into the river downstream of the SA border. More than a third of the 1.1 billion tonnes of salt that passes down the river each year comes from SA.

At Kerang in Victoria almost every farm in the 135,000 hectare irrigation area is affected by salt, and water flowing from the region to the Murray can be half as salty as sea water. The State has responded by pumping some of the flow from the salty Barr Creek to evaporating basins.

DELHI PLANS TO PROMOTE SOCIAL FORESTRY TOLD

Madras THE HINDU in English 15 Jun 81 p 10

[Text] New Delhi, June 14--A programme for the promotion of social forestry, drawn up by the Union Agriculture Ministry, envisages implementation of social and farm forestry projects in 100 selected districts.

The idea is to raise rural fuelwood plantations on an area of about 2.6 lakh hectares and the supply of about 58-crore seedlings to farmers and children for plantation under "a tree for every child" programme.

Under the Sixth Plan, Rs 100 crore has been earmarked for these schemes. Out of this, Rs. 50 crores will be made available by the Union Government as its contribution for Centrally sponsored schemes to be implemented by various States.

The projected requirement of fuelwood in the country by 2000 A.D. is 225 million cubic metres.

By the end of the Fifth Plan, plantations under farm forestry/fuelwood/social forestry schemes have been raised on an area of 1.5 million hectares. From these plantations, fuelwood to the extent of 15 million cubic metres will be available a year on a 10 to 15-year rotation.

The total availability of fuelwood by 1979-80 was about 18.5 million cubic metres including fuelwood from natural forests. This would still leave a gap of over 192 million cubic metres by the end of 2000 A.D.

The National Commission on Agriculture has recommended implementation of a massive social forestry programme. It adopted the term 'social forestry programme' to distinguish it from production (or commercial) forestry. This programme as recommended by the Commission consists of four types of activities, viz

(i) farm forestry; (ii) extension forestry; (iii) re-forestation of degraded forests and (iv) recreation forestry.

CSO: 5000/7054

PANEL TO REVIEW ENVIRONMENTAL LAWS PROPOSED

Bombay THE TIMES OF INDIA in English 23 Jun 81 p 19

[Text] New Delhi, June 22 (UNI). The department of environment proposes to set up a legal cell to review and plug loopholes in the laws relating to environment, according to official sources.

A legal expert will head the cell which will also codify the environmental laws. There are at present more than 350 laws having a direct or indirect bearing on environmental protection.

According to experts, many of the existing laws are primarily meant to promote resources utilisation for specific economic benefits without a careful analysis of the potential short- and long-term deleterious effects on environment.

Also, many of the laws relating to the management of environmental resources do not clearly state their social objectives. The administrative machinery set up to implement the legislative measures have, therefore, on their own interpreted their duties from time to time. This has often proved to be not in conformity with the intent and purpose for which the laws are made.

Moreover, changes in national policies and circumstances have rendered several of these acts obsolete.

Another lacuna found is that some of the laws relating to land use and management of environmental resources at times appear to be accomplishing mutually-defeating social objectives.

Also, the implementing and monitoring machinery of many of these legislative measures is deficient in the scientific and technical expertise as well as other infrastructural resources required to assess and prevent the possibility of adverse environmental impacts.

The high-level committee for recommending legislative and administrative machinery for environmental protection, which has given birth to the department of environment, has called for a comprehensive review of two prominent Central acts.

One is the Insecticides Act, 1968, which, it says, has not encouraged the disuse of organochlorine pesticides. These pesticides are in disfavour all over the

world for their proven detrimental effects on various natural living resources of the environment.

Another is the Water (Prevention and Control of Pollution) Act, 1974. The committee holds the view that the Central and state boards for the prevention and control of water pollution, set up under the Act, have not reached anywhere near their purpose. The rapid growth and diversity of the Indian chemical and other industries giving rise to chemical effluents and wastes has rendered the traditional methods and limited outlook of the past totally inadequate to meet the modern problems of water pollution.

The committee, among other things, also recommended new legislative measures for the protection of grazing lands, catchment areas of major river basins, wetlands and estuaries and prevention of noise pollution. These recommendations will shortly come up for discussion at a high level, according to the sources.

CSO: 5000/7056

BRIEFS

DUST PARTICLES CREATE HEALTH HAZARD--A high concentration of infected dust particles in the atmosphere is posing a serious health hazard in many parts of Chandigarh region. Dust particles from the loose alluvial soil collect harmful virus and bacteria from manure and dirty water in the fields and cause serious throat, respiratory and lung ailments, says a study conducted by the doctors of the Central Scientific Instruments Organisation (CSIO). The threat is especially marked during the harvesting season in summer. In the industrial towns, the high concentration of dust particles adds to the industrial pollution and leads to 'frequent critical situations,' the study notes. Besides, it causes damage to sophisticated machinery and affects the health of the local populace. Even in Chandigarh, a city comparatively free of pollution from industries and vehicular traffic, the dust level remains above the "permissible" limit of 75 micrograms per cubic metre almost throughout the year. It was recorded to be as high as 425 microgram per cubic metre on certain days in May and June. About two thousand cases of pharyngitis, tonsillitis and respiratory diseases are reported every month in the local general hospital. [Text] [Bombay THE TIMES OF INDIA in English 22 Jun 81 p 9]

CONSERVATION PLANS NOTED--Udhagamandalam, June 14, (PTI): The Union government would spend on soil and water conservation works during the sixth plan Rs. 600 crore--the amount spent during all the five plans taken together. This showed that the government attached the utmost importance to soil and water conservation, Dr. K. G. Tejwani, director, Central soil and water conservation research and training centre, Dehra, Dun. He was laying the foundation stone for a hostel building attached to the Central soil and water conservation research centre here yesterday. The Udhagamandalam centre, he said, had been allotted Rs. 285 lakh for research work during the sixth plan. It was likely to go upto Rs. 400 lakh. Dr. Tejwani said that the Udhagamandalam centre was doing an "excellent" job adopting latest methods, which no other centre in the country had adopted. The office-cum-hostel complex at the research centre here is expected to cost Rs. 42 lakh. Dr. N. S. Randhawa, deputy director, ICAR, also participated in the function. [Text] [Bombay THE TIMES OF INDIA in English 15 Jun 81 p 21]

CSO: 5000/7055

BRIEFS

POLLUTED FISH POISON 150--Jakarta, June 13 (UPI)--More than 150 people in the mountain city of Bandung have been admitted to the hospital in serious condition after eating polluted fish, police said Saturday. The victims of the mass food poisoning all ate fish from local ponds supposedly polluted by a virus which hit the region several months ago, police said. Bandung is 60 miles east of Jakarta. [Text] [Taipei THE CHINA POST in English 16 Jun 81 p 7]

CSO: 5200

STRINGENT REQUIREMENTS IMPOSED BY PESTICIDES BOARD

Kuala Lumpur NEW STRAITS TIMES in English 20 May 81 p 3

[Text]

KUALA LUMPUR. Tues. — Malaysia is no longer a dumping ground for prohibited pesticides manufactured by companies in advanced countries, sources said today.

This is because of the Pesticide Act, 1974, enforced since April 10.

The requirements imposed by the Pesticide Board are now so stringent that some pesticides approved for use in some advanced countries would not be able to obtain registration here, according to an industry source.

Under the Act, all pesticides for agricultural use are required to be registered with the board by April 4.

Pesticides that fail the registration test cannot be manufactured or imported except with a permit for research or development purposes.

The Agriculture Ministry has also set up a

laboratory to check on pesticides in the market.

The technical manager of a major agricultural chemical distributor said the board is a well-informed body which studied the evaluation reports of all pesticides manufactured here and abroad.

The board's standards followed closely those of the Environment Protection Agency of America.

As such, there was no possibility of a pesticide, prohibited in a developed country, being found in the Malaysian market after April 1, he added.

The board had declined to register some pesticides approved for use in Europe and the U.S., to the consternation of some distributors, he said.

The Act also has provisions for passing regulations on the transportation, storing, labelling, packing, limitation of use and advertising of pesticides.

RUBBER, PALM OIL EFFLUENT POLLUTE ENVIRONMENT

Colombo THE CEYLON DAILY NEWS in English 24 Jun 81 p 8

[Text]

Malaysia's two most polluting industries also happen to be among the most important — palm oil and rubber. About two million pounds or 900 tons of organic effluent are discharged into the nation's rivers daily and half of it comes from palm oil mills and rubber processing factories. Sewage accounts for the other half.

Progress is, however, being made in reducing pollution, wholly due to Government prodding in the form of regulations. These regulations aim to reduce pollution progressively by establishing limits on the discharge of effluents.

Because of the importance of the palm oil and rubber industries, great care was taken in the formulation of standards, says A. Maheswaran, director of the Water Pollution Control Division.

"These standards have not only to be effective in protecting the environment but also sensible within the framework of economically feasible technology available to these industries today," he says. Target dates are set for the progressive reduction of discharges.

There are 140 palm oil mills and more than 450 rubber processing factories in Malaysia. The Ministry of Science Technology and Environment estimates

that the palm oil mills generate more than 10,000 tons of waste a day containing a biochemical oxygen load or biological oxygen demand (BOD) of 210 tons daily.

The BOD is an index of pollution which determines the detrimental effect of discharging effluent into a stream. It represents the quantity of oxygen absorbed by the effluent when it enters the water resulting often in a deficiency which kills fish and other marine life.

About 80 per cent of the palm oil mills have installed effluent treatment plants; others are in the process of setting them up. The government expects that palm oil production will be double the 1980 level in five years, resulting in a corresponding rise in waste and BOD.

Rubber processing factories presently generate a total BOD load of 230 tons a day. By 1985 the government estimates that the rubber and palm oil industries together will

spew forth a combined BOD equivalent to

domestic sewage from a population of 15 million.

This highlights the dangers ahead considering that the effluent currently discharged from these two industries is already polluting some 35 rivers throughout the country. Some of these rivers are sources of drinking water supply," says Mr. Maheswaran.

There was considerable public outcry recently when the drinking water supply of Batu Pahat, a small town in the southern state of Johore, was contaminated by waste from a palm oil mill.

S.T. Sundram, director general of environment, says that the cost of installing effluent treatment plants ranges from M\$450,000 (US \$ 200,000) for a mill of 20-ton capacity to more than M1 million dollars (US \$ 455,000 dollars) for a 60-ton mill. FELDA, the Government's land development authority, has spent roughly M30 million dollars (US \$ 14 million dollars) for effluent treatment facilities in its 22 palm oil mills.

Big plantation houses like Sime Darby and Harrisons and Crofields (H and C) have allocated large sums to work on pollution control in research labs situated in the plantations. Sime Darby has spent about M 5 million dollars (US 2.2 million dollars) in the last five years while H and C has invested M 6 million dollars (US 2.7 million dollars) over the last three.

While pollution control equipment is being installed solely out of the need to comply with government regulations, the larger and more resourceful companies are making efforts to derive "productive" benefits from the outlay. These efforts are all still at the experimental stage.

Only one plantation company — Sime Darby — is using, on a trial basis, the methane gas generated by treating palm oil effluent for

drying rubber sheets. A spokesman of its research department said the process is only feasible where rubber is being cultivated near the mills.

Other plantation houses, including Guthrie and Kuala Lumpur Kepong, are using treated effluent as fertiliser for oil palms. Guthrie says the effluent replaces, to a certain extent, the inorganic fertiliser needed, and this results in some cost savings for the company.

The savings in fertiliser cost, however are unlikely to be dramatic. According to government sources, the effluent from a 60-ton mill is sufficient to fertilise only about 100 acres of oil palm. Guthrie also expects the yield from the trees to increase due to the irrigation effect of the effluent fertiliser.

A few companies are also producing animal feed from the treated waste but, on the whole, palm oil and rubber mills are merely treating and discharging the waste.

Mr. Sundram maintains that the installation of effluent treatment plants should not be looked at from the aspect of costs and benefits to the company.

He says "Until the introduction and enforcement of environment laws, these companies have been externalising the cost of their environment. If

they have made the public pay in terms of a dirtier environment. If they are able to recover some of their costs in installing waste treatment plants, so much the better. But the major beneficiary is, and should be, society."

IMPORTANCE OF FOREST CONSERVATION

Kathmandu THE RISING NEPAL in English 28 Jun 81 p 4

[Text] Kathmandu, June 28: After the formulation of the forest policy in 1960 various programmes have been launched making strong legal provisions and launching wide publicity to enlighten the people on the importance of forest, reports RSS.

According to Nepal Bank Patrika, in the areas having integrated rural development projects, the afforestation programmes have been launched as an inseparable part of the project. The main objective, at present should be the protection of the forest rather than the development of the forest, the journal says.

"If we go on planting new trees and no efforts are made to prevent the destruction of forests, there will be only the waste of time, labour and resources," the paper adds.

Taking into consideration the gravity of the situation of rapidly declining forest resources the World Bank is taking keen interest in forest development in Nepal.

For the first phase of the 20 years long programme of community forest development project, the World Bank's affiliate, International Development Association is to make available the loan equal to 20 crore and 40 lakh of the total expenditure of 29 crore and 76 lakhs, it is learnt.

Of the total amount, UNDP and USAID will contribute aid equalling Rs. 7 crore and 32 lakh and remaining 2 crore and 4 lakh will be raised from local sources.

This project will, at present, be implemented in 28 districts.

Afforestation programmes will be launched so as to establish Panchayat forest in 12 thousand hectre land and Panchayat-protected forest in 40 thousand hectre land.

Besides, afforestation will be encouraged in private property as well, it is learnt.

One of the reasons for not being able to implement forest development programme effectively has been the lack of trained personnel.

Hence the aforesaid project has also made a scheme for producing diploma level technicians, beside launching this programme in Pokhara and Hetauda, the Ministry of Forest will also establish a short-term training unit.

For the fire wood conservation, 15 thousand improved stoves will be prepared for the use of general public.

"Forests cannot be protected unless people feel that forests are for us and for posterity," the Nepal Bank Patrika says.

CSO: 5000/4923

DEFORESTATION SEEN AS SERIOUS THREAT TO DAMS

Kathmadu THE RISING NEPAL in English 23 Jun 81 pp 1, 4

[Text] The World Watch Institute in Washington has underlined the need for stabilising the topsoil of Nepal through reforestation and improved practices for the success of the hydroelectric and irrigation plans, reports RSS.

A new study released yesterday by the institute points out that uncontrolled tree cutting and farming on steep land in Nepal are a serious threat to the few dams already built on the rivers that run out of the Himalayas.

While emphasizing the potential of hydropower it says that in Asia which has one fourth of the earth potential only nine percent of the potential has been exploited. If all economically available hydropower were harnessed, most of the world's electricity needs could be satisfied.

Pointing out the need for charging an economic rate for the hydropower produce the study notes that hydroelectric complexes will be producing energy long after the oil wells run dry and coal fields are exhausted. Hydropower is a clean, renewable, and above all inflation proof energy sources.

One major development the institute commends is the construction of small scale dams as in China. Since 1968 an estimated ninety thousand small scale hydrounits have been built mainly in the rainy southern half of the country and these now supply 6, 320 megawatts of powers.

Although the average size of the units is a meagre 72 kilowatts small plants account for forty percent of China's installed capacity. In more than one quarter of the nation's counties these small dams are the main source of electricity to a large segment of the population who would otherwise be without it.

Many of the components of hydroplants-turbines pipes and gates-have been constructed by local artisans using local materials. In over thirty five countries falling water generates most of the electricity. Norway, for example, gets ninety nine percent of its electricity from water power, Switzerland 74 p.c., and Canada 67 p.c. Many third world nations such as Sri Lanka, Zaïre and Zambia have low electricity demands that are totally met by hydropower. Brazil South America's emerging industrial giant relies on hydro for 87 p.c. of its electricity.

CSO: 5000/4922

BRIEFS

AFFORESTATION PROGRAM STARTED--Rajbiraj, June 26: Saptari district panchayat acting president Madhav Prasad Gajurel initiated an afforestation programme at Prasabani village panchayat recently, reports RSS. About one thousand teak trees are expected to be planted under the programme organised by Rajbiraj Jaycees. [Text] [Kathmandu THE RISING NEPAL in English 27 Jun 81 p 3]

TAMAGADHI AFFORESTATION PROGRAM--Birgunj, June 28: An afforestation programme was launched yesterday at Tamagadhi, 14 kilometres from Pathlaiya, on the occasion of the auspicious birthday of His Royal Highness the Crown Prince, reports RSS. Narayani Zonal Commissioner, Parsa district panchayat president Fazil Ahmed, panchas and members of class organisations as well as other distinguished persons took part in the programme. Under the programme tree saplings will be planted in some 90 hectares of land this year. Meanwhile, garlands were offered to the portrait of His Royal Highness the Crown Prince at local Bal Mandir yesterday. Sweets were distributed to children on the occasion. The zonal commissioner also gave away prizes to the children declared winners in various programmes organised to mark the auspicious day. [Text] [Kathmandu THE RISING NEPAL in English 29 Jun 81 p 3]

CSO: 5000/4923

ENVIRONMENTALISTS GAIN ACCESS TO ALUMINUM SMELTER DOCUMENTS

Appeals Court Hearing

Wellington THE EVENING POST in English 12 Jun 81 p 6

[Text] Access to Crown documents concerning the second aluminium smelter at Aramoana was sought by environmentalists in the Court of Appeal today.

The court comprised Mr Justice Cooke, Mr Justice Richardson and Mr Justice McMillin.

The Environmental Defence Society (first applicant) and the Royal Forest and Bird Protection Society are seeking a judicial review by the court of the purported exercise by the Governor-General in council of powers under Section 3 (3) of the National Development Act, 1979, to apply the provisions of the act to a proposed private work, namely the construction of the aluminium smelter.

The action was removed from the High Court to the Court of Appeal and the substantive hearing of the action is expected to begin at the end of this month.

Today's hearing was by way of an interlocutory (pre-trial motion) for discovery of Crown documents and interrogatories (answers to questions raised).

Jurisdiction

The Crown is claiming that the court has no jurisdiction to order discovery as crown documents are privileged.

South Pacific Aluminium Limited and the Otago Harbour Board are named as

first respondent, the Minister of National Development as second respondent, the governor-general as third respondent, the Planning Tribunal as fourth respondent and the Commissioner for the Environment as fifth respondent.

Mr R A McGechan, with him Mrs M A Frater, is appearing for the applicants, Mr E W Thomas, QC, with him R H Hanson, for the first respondents and the Solicitor-General, Mr D P Neazor, QC, with him Mr R P G Haines for the other respondents.

In his submissions Mr McGechan said the national development order had been made without hearing submissions from the Environmental Defence Society or giving the governor-general an opportunity to consider a petition from the society.

Concerned

The society had written to the clerk of the Executive Council expressing concern at the government action and asked to be permitted to make submissions.

The society regarded its letter as an interim petition and wanted a further opportunity to make submissions.

Mr McGechan then listed documents known or believed to exist for which discovery was sought.

Mr McGechan argued that the court had jurisdiction to order discovery. That power was subject to the restrictions of the Crown Proceedings Act that prevented disclosure only where it would be prejudicial to the public interest.

Remedies

The remedies sought in the present proceedings were a declaration under the Declaratory Judgments Act that the decision of the Governor-General in council was unlawful, an order setting aside the decision, a writ of certiorari to quash the decision and a prohibition order restraining the Planning Tribunal from dealing with the matter.

As these were all civil proceedings, interrogatories were allowed for under the Crown Proceedings Act, Mr McGechan added.

If, on the other hand, no jurisdiction existed, then it was a proper case for the court to enjoin the Crown to make discovery as a moral duty, he said.

Later Mr McGechan moved for an order that the clerk of the Executive Council, Mr P J Millen, submit to oral examination on oath within 10 days and that his depositions so taken be available for use as evidence by the applicants at the substantive hearing.

Embarrassed

Mr McGechan said he understood the solicitor-general was embarrassed at the short notice of the motion and he therefore asked that the application be stood over, hopefully to be brought on before a judicial conference next week.

Mr Neazor submitted that the orders sought as to discovery or interrogatories were not available against the Crown.

Alternatively if they were available then the court should exercise its discretion in favour of the Crown.

Limited Access Granted

Wellington THE EVENING POST in English 16 Jun 81 p 34

[Text]

Access to some crown documents relating to the second aluminium smelter at Aramoana has been granted to environmental groups by the Court of Appeal.

On June 30 the court, comprising Mr Justice Cooke, Mr Justice Richardson and Mr Justice McMillin, will begin hearing an application by the Environmental Defence Society and the Royal Forest and Bird Protection Society for a judicial review of the purported exercise by the governor-general in council of powers under the National Development Act to

apply the provisions of the act to a proposed private work, the construction of an aluminium smelter.

In a judgment delivered today the court ordered discovery against the Crown of all documents relating to the smelter project that were considered by the executive council or cabinet on or about April 27 last.

The order is without prejudice to the right to object to the production of documents on the ground of public interest immunity, and the judgment said the court expressed no opinion on the form or outcome of any such objection.

The court held that it had jurisdiction under the Judicature Act to order discovery and interrogatories against the Crown, but such jurisdiction was discretionary.

The judgment disallowed all interrogatories on the ground that they were "fishing" expeditions and "oppressive" and with the intention of ascertaining by minute examination whether the applicants could find out some ground of invalidity other than the specific one (alleged breach of natural justice) on which they had evidence.

Sensitive Legal Issue

Wellington THE EVENING POST in English 17 Jun 81 p 4

[Article by High Court reporter David Mulgan]

[Text]

When the Court of Appeal yesterday ordered disclosure of cabinet documents relating to the Aramoana aluminium smelter it meant an excursion by legal process into a sensitive area of state executive confidentiality.

The modern democratic state depends on a fine balance between the respective functions of the executive, the legislature, and the judiciary. This was emphasised in an address last year by Sir Owen Woodhouse, a member of the Court of Appeal and now its president.

In the present instance, the court is being asked to pronounce on the validity of

a state executive decision which environmental groups will contend it was not empowered to do under the National Development Act of 1979.

The court has yet to hear and decide that issue.

There have been a number of challenges in recent years to decisions of cabinet ministers.

Some controversy exists in legal circles as to how far the courts should go in interfering with a ministerial decision.

A government is, after all elected to make decisions on behalf of the populace. The power of ministers, and in-

deed of cabinet, to make executive decisions is spelled out in various statutes, which as a rule give a wide discretion in decision making.

It is sometimes a curly question whether a certain decision is within the ambit of that discretion.

"Discovery" is the legal term for disclosure of records between two sides in civil litigation. It is routine.

The court will often make an order for discovery before a trial. For instance, if a company is being sued this will mean that the plaintiff or usually his lawyer will have the right to inspect the

company's files, but only for material relevant to the litigation.

To protect a defendant's interests the court is usually on guard against allowing too wide a discovery, or what is often referred to as a "fishing expedition," to probe what the plaintiff is not entitled to.

In the present case it is the state that is being sued.

The Crown Proceedings Act lays down many restrictions about how and in what circumstances the Crown can sue or be sued. The solicitor-general, who appeared in last week's hearing, claimed Crown immunity in the matter of discovery.

The court has held that it has jurisdiction to order dis-

covery against the Crown, but that such jurisdiction is discretionary.

It has exercised that discretion in a restricted way by limiting discovery to documents that were considered by cabinet and the executive council when the decision was made to approve the smelter.

This is far short of the extent of discovery sought by the applicants, the Environmental Defence Society and the Royal Forest and Bird Protection Society.

Also the court has in the Crown's favour made the order without prejudice to the right to object to the production of documents on the ground of public interest immunity.

ENVIRONMENT COMMISSION RAPS PROPOSED SYNTHETIC FUEL PLANT

Three Main Impacts Cited

Wellington THE EVENING POST in English 10 Jun 81 p 3

[Report by energy reporter Michael Field]

[Excerpts]

THE Commission for the Environment has strongly criticised government strategy to build a massive synthetic petrol plant, despite a clear warning from the Ministry of Energy that such policy was none of its business.

Last night the commission released a large two-volume audit of an environmental impact report published on February 27 by the New Zealand Synthetic Fuels Corporation Ltd.

The corporation, owned jointly by the Government and Mobil Oil, propose to build a \$750 million plant which will be a world first. It will process Maui natural gas into methanol and then convert the methanol into petrol.

The project has been placed by the Government on the so-called fast track of the National Development Act. Under this all environmental and planning procedures are compressed into one public planning tribunal hearing.

The act requires the commissioner of the environment to "give his opinion on the environmental implications of the work in the form of an audit."

The audit had to be completed within three months of the receipt of the impact report.

The commission said the decision to make petrol from Maui gas had a number of significant environmental implications.

"These impacts are extensive and over the period of the plant's operation they will impinge on the interests of people all over New Zealand — not just those in north Taranaki who would be directly affected by the installation itself."

Three of the main impacts are: —

- ☐ Because of a 47 percent energy loss in the process, the Maui gas field will be used up at a faster rate than if the gas was burnt directly as cng.
- ☐ The plant commits New Zealand to the use of petrol for a long period ahead.
- ☐ The commitment to petrol implies a continuance, at least in the short term, of the use of lead additives, that is, toxic substances.

People's Rights Eroded

Wellington THE EVENING POST in English 10 Jun 81 p 3

[Text]

The National Development Act has eroded people's rights, the Commission for the Environment claims in its audit of the proposed Mobil synthetic fuel plant.

The act requires that an applicant for fast-track treatment obtain an interest in a site before making an

application for special treatment.

This approach imposed constraints on proper evaluation of site options, as well as on the rights of affected parties to object to the site selected.

"Under the provision of the act, some of the largest projects ever undertaken in New Zealand are being sited

by their proposers primarily to meet the requirements of the enterprise concerned."

But the act provided no mechanism to ensure that a good site from the point of view of the public interest was in fact chosen. The applicant only had to show that the site was suitable, not that it was the "most suitable."

"While this might be justified in some cases on grounds of the 'national importance' of the project, it is important to recognise that this procedure erodes people's rights to control the conditions under which they live, and to limit the intrusion of industries which they consider incompatible," the commission said.

Nevertheless, the commission commented on the actual site and said the plant should have been sited on a less agriculturally productive area.

Productive

The commission quoted from a submission made by the Ministry of Agriculture's

New Plymouth farm advisory officer, Mr B I Hocking.

"In essence," he said in a written submission, "it would be fair to suggest that it would be difficult to find a more potentially productive piece of land in Taranaki than that chosen for the synthetic petrol plant."

The commission also ex-

pressed reservations at the siting of the plant so close to the coast. It said "it strongly supports the concept of a scenic reserve on the coastal fringe of the site."

Historic sites should be fenced off and the public granted access, while the commission recommended that the company fund a full-time archaeologist to work on the site.

Lead-Free Fuel Advocated

Wellington THE EVENING POST in English 10 Jun 81 p 3

[Excerpts]

The Government should move to eliminate lead additives from petrol, and all synthetic petrol should be lead-free, the Commission for the Environment recommends.

In an audit of a report on the proposed Mobil synthetic petrol plant, the commission said the harmful effects to

the environment of the additives in petrol outweigh their benefits.

It was current practice in New Zealand to add 0.84 grams per litre to premium petrol, one of the world's highest levels.

The commission said use of the Maui gas resource presented the opportunity to reduce the amount.

The commission recommended that the Government encourage the introduction of engines that can use 94 octane petrol instead of 98. They added that the 94 octane petrol produced by the synthetic plant should be used unleaded.

Prime Minister's Rebuttal

Christchurch THE PRESS in English 9 Jun 81 p 2

[Text]

PA Wellington
Criticisms made by an environmental watchdog group of the Government's plans for a synthetic petrol plant in Taranaki were attacked by the Prime Minister (Mr Muldoon) yesterday.

The group said that New Zealand would be better off if the project were cancelled and the effort put into increasing the conversion rate of vehicles to run on compressed natural gas.

It said the synthetic petrol plant would be wasteful of the natural gas from the Maui field by comparison with use of the gas as C.N.G. It said also that the production of C.N.G. on the scale envisaged would be cheaper than the production of synthetic petrol, because of cost rises in building the synthetic plant.

Mr Muldoon said that the group's arithmetic, apart from its reasoning, was quite unsound. The group's comments were propaganda, not advice.

"They are environmentalists," he said. "They are opposed to having big plants in the middle of the countryside. They will go to any lengths to put forward arguments as to why it shouldn't be there. But this argument holds very little sense."

"They say we should run everything on C.N.G. It doesn't make sense. If we are aiming to be fully self-sufficient by the year 2000, in accordance with present policies, then their proposal makes no sense."

Mr Muldoon said that the synthetic plant would be the first commercial scheme of its kind, but the catalyst used

in the process had been used for other purposes and in a pilot plant of an appropriate size.

"Compressed natural gas has a considerable value as a transport fuel but it is not as flexible as petrol, the fuel for which today's motor-cars were made," he said.

Talk of the number of jobs at the plant is another spurious argument. The jobs that will be created by the synthetic petrol plant are the jobs arising from the saving of external funds in the purchase of oil. This economy needs overseas funds. Everyone knows that.

"The synthetic petroleum plant is estimated to save \$150 million a year and this is, for example, a great deal more than the total earnings of our cheese industry."

"That puts the issue in perspective. It is those extra overseas funds that will provide jobs in every part of the economy, not just on the plant site," the Prime Minister said.

A booklet published at the week-end by the Environment Group, Inc., "Energy Development in Taranaki," says that the proposed synthetic petrol plant would reinforce rather than relieve New Zealand's dependence on imported oil.

The booklet, edited by the energy researcher, Mr Simon Terry, says that the Maui natural gas earmarked for the production of synthetic petrol would be better used to fuel cars directly with C.N.G.

By maintaining the oil-based transport system and inhibiting development of al-

ternative fuels, the petrol plant would allow only a small gain in self-sufficiency while reinforcing dependence on imports.

"The synthetic petrol strategy does not lead to a sustainable future," it says. "It is a dead end. C.N.G., however, can be directly replaced by renewable biogas, which is already commercially viable."

Converting natural gas to petrol wasted nearly half the energy available from the gas, while C.N.G. suffered

only minor losses in compression.

"Consumers would pay twice for synthetic petrol — at the pump and in taxes underwriting the petrol plant," the booklet said.

It estimated that the final cost of the plant would be about \$3000 million; this compared with the present estimated cost of \$750 million.

The Minister of Energy (Mr Birch) said yesterday that the synthetic petrol project was likely to remain the

most attractive single alternative to oil imports.

The Government would again fully consider the whole matter of alternatives to oil imports once the present assessment of costs and technology for the synthetic petrol project had been reviewed by advisers, he said.

Commenting on an Environment Group publication, he said that special-interest groups could afford to promote their own particular solutions to New Zealand's

energy problems but the Government had the responsibility to look at the question from all points of view.

"Clearly, there is no single answer, such as C.N.G.," he said. "Flexibility in the supply of transport fuels is particularly important."

"It should be noted that the liquid fuels strategy adopted for New Zealand is based on studies and recommendations by the Liquid Fuels Trust Board. It is a comprehensive package of measures which have been carefully thought out — not just plucked out of thin air."

Historic Decision Seen

Auckland THE NEW ZEALAND HERALD in English 9 Jun 81 p 18

[Article by Ted Reynolds]

[Text] One of the great set-pieces of New Zealand history is about to be wheeled out for a decision.

On the surface, the event will not be at all impressive.

There will be a study paper written by one of the least powerful of government agencies, the Commission for the Environment.

And it will say either that a synthetic petrol plant in Taranaki is bound to foul the countryside, or that a factory could be built there without much harm to the air, the water or the scenery.

If the commission's message is that it seems all right for the Mobil oil company to go ahead with its synthetic petrol plant, a few groups will protest — the Friends of the Earth, the Values Party, the Environmental Defence Society.

Fairly soon after that the Government will make a choice.

Either it will let Mobil turn about 45 per cent of the Maui gas field into synthetic petrol and in the process licence the company to waste about 40 per cent of the energy it takes out of the ground, or it will tell Mobil that synthetic petrol is not on.

If the Government says no to synthetic petrol, the crushing weight of oil prices and the fragile supply link with the Middle East will force it to find some other way of moving towards self-sufficiency in motor fuels.

Going Broke

The arguments in favour of the Mobil idea are simple.

New Zealand is going broke buying oil, but there are three things that could be done quickly and easily to halve the oil-import bill.

Drivers could do about 10 per cent of their running on compressed natural gas or liquefied petroleum gas, between 20 and 23 per cent on Mobil synthetic petrol and about 20 per cent on petrol made from condensate, the light crude oil found in the Kapuni and Maui gas fields.

This is the basis of the Government plan for 50 per cent self-sufficiency in motor fuel by 1985.

But the plan makes environmental groups wring their hands in despair and disbelief.

What is the sense, they ask, in trying to escape today's fuel crisis by repeating the process that brought the crisis upon us all?

Here, they say, is the opportunity to break free from the pattern of burning up the entire supply of a non-renewable resource and then looking round for some other resource to drain.

Short Term

Taken together, the arguments of the Friends of the Earth, the Environmental Defence Society, the Environment and Conservation Organisations of New Zealand, and the Values Party state that there are better ways of approaching self-sufficiency than through the Mobil synthetic petrol idea.

"The worst feature of the proposal," says the Environmental Defence Society, "is that it is part of an energy policy based on short-term expediency rather than long-term stability and sustainability."

Maui gas is expected to be half used up within 15 years, and in turning gas into syn-

thetic petrol Mobil will lose about 40 per cent of the energy that it feeds into its planned factory.

Furthermore, the Mobil plant will be the first commercial-scale attempt to employ the Mobil gas-to-petrol method, which so far is known only from laboratory scale experience.

These points lie behind the society's remark that the Mobil scheme is "unnecessary and wasteful, and should be abandoned immediately in favour of better-proven technologies which could meet New Zealand's needs more efficiently and promptly."

Make Diesel

Not trying to produce an ideal energy future, but merely wanting to show that alternatives are available, the Environmental Defence Society has produced a rival plan which shows that the Government's aim of quick 50 per cent self-sufficiency is possible without synthetic petrol.

First, says the society, the Maraden Pt refinery should continue to be run just as in

the Government plan, using imported and local crude, and making diesel as a by-product.

Then all petrol should be laced with 15 per cent industrial alcohol.

After that, the big users of petrol should be tracked down and should be wooed into changing to compressed natural gas.

The Government, suggests the society, has underestimated the amount of petrol that could be saved by using CNG or LPG.

Save Fuel

Twenty per cent of drivers are supposed to use about 60 per cent of petrol. So if the big-mileage drivers could be converted to CNG, it would be possible to make CNG save more petrol than is allowed for in present planning.

One thing Government planning makes no allowance for, is the idea of saving fuel.

The Environmental Defence Society reckons that if only people would be more careful with their driving and kept their cars tuned, the country would save twice as much petrol as Govern-

ment plans allow for through the use of CNG and LPG.

The society also argues for a different attitude. Should New Zealand import as much petrol as people will buy? Or should we set a level of imports and then keep within it?

In spite of the resentment and defiance caused by carless days and a ban on weekend petrol sales, the society still thinks people will see the point of petrol saving if the alternatives are explained.

Own Gas

In its planning so far, the Government accepts that the South Island will never have a natural gas pipeline and therefore will never have CNG because there would be so much dead running in a pipeline between Wellington and the first big market, Christchurch.

But the Values Party wonders whether the benefits of CNG in the South Island might outweigh the pipeline cost.

And anyway, says Jeanette Fitzsimons, the Values Party energy specialist, the South Island is already producing a natural gas which is being used as a motor fuel.

Biogas or methane is produced naturally when animal

manure or vegetation is mixed with water. The mixture is held at about 35 deg C and kept away from oxygen.

At Cust, about 30 miles from Christchurch, a religious community is one of the showplaces for methane gas. The community owns 18 vehicles. Fourteen of them are Ford Transit vans; there are also diesel and petrol tractors.

Inside a 20,000-gallon digester, fowl manure and water (kept warm with heat collected in eight square metres of solar panels) produce the equivalent of 17 gallons or 77 litres of petrol every day.

Two compressed gas bottles of the sort used for CNG give the vans a range of 140 kilometres.

The community reckons it saves \$77 a day by freeing itself from petrol.

And once it has stripped the methane from the fowl manure the community has a bonus: Nitrogen-rich liquid manure.

Another byproduct which could flow from methane gas and which the anti-Mobil groups see as a real advantage, is that compressed methane gas is entirely suited to small-scale production.

Groups which go in for it free themselves from the ominous power which, whether real or imaginary, is seen to hover over the great oil companies.

One point which seems not to have been picked up by the environmental lobby is a small caution that Mobil feels about its own synthetic petrol.

Will Freeze

A paper delivered in New Orleans this year by four Mobil scientists says that Mobil synthetic petrol differs from ordinary petrol by containing between 3 and 6 per cent of durene, compared with 0.2 per cent and 0.3 per cent in ordinary petrol.

The significance is that durene freezes at a temperature people would find in a reasonably hot — 175 deg F. It can therefore, in Mobil's words, cause "driveability problems if it crystallises in an engine carburettor."

The Mobil men do say, though that in their experiments they have found that the manufacturing process can be governed so that durene may be kept within acceptable limits.

OFFICIAL FAULTS 'FAST-TRACK' DEVELOPMENT PROCEDURES

Auckland THE NEW ZEALAND HERALD in English 4 Jun 81 p 16

[Text]

Press Assn Wellington

The first hearing under the new National Development Act — concerning the proposed Petralgas methanol plant in Taranaki — had pointed up both the advantages and disadvantages of the "fast-track" procedures, the Commissioner for the Environment, Mr K. W. Piddington, said yesterday.

Included in the disadvantages of the new system was cost which made it difficult for interested parties to take part.

"The proceedings are a costly business and involve a great deal of time and energy for all parties, including the Commissioner for the Environment.

"This means that it is even harder for individual or voluntary organisations to find the funds to appeal at the tribunal stage," Mr Piddington said.

Other disadvantages listed by the commission included:

- Lack of information about the project until the environmental impact report appeared. It was probably desirable for major projects

to have a White Paper or similar document produced early in the piece, and a threshold appraisal made.

- Under the National Development Act, a proposal was specific to one site, so evaluation of alternative sites from an environmental point of view had to be separate from National Development Act procedures.

- The consents granted by the tribunal may not cover all the significant environmental impacts, so the commission had to pursue some of these issues outside the

tribunal. This could not be done effectively within the time constraints imposed by the act.

Advantages included:

- Clearly established procedures for the environmental evaluation of the project, and the commission's role was clearly stated.

- Environmental aspects were fully argued at the tribunal hearing. Mr Piddington said the tribunal, looking at the Petralgas proposal, ruled that if the costs of meeting environmental requirements were unacceptable to the

proposer, then the site was unsuitable.

It also said that if more stringent requirements than those laid down in regulations were required, the Planning Authority had the power to impose these.

In an extreme case the tribunal said it might be preferable for a resource not to be used if use would result in excessive environmental damage.

An order-in-council last week gave the \$150 million Petralgas scheme the go-ahead. The projected completion date is 1982.

AUCKLAND STUDYING WASTE-FREE TRASH RECYCLING SYSTEM

Wellington THE EVENING POST in English 15 Jun 81 p 34

[Text]

AUCKLAND, Today (PA). — The Auckland Regional Authority may consider a \$20 million rubbish recycling system that eliminates all waste — the first such scheme in the Southern Hemisphere.

Today, the system was discussed by the Swiss firm, Praxapen Ag, and the Mayor of Waiheke City, Mr Covic. Mr Covic said he was interested and would be approaching the chairman of the ARA, Mr L. Murdoch, about the scheme.

In the system, all re-

fuse can be separated and fully utilized, making building and road-making materials, animal feedstuff and fertilizer.

Praxapen Ag won an international award, "Award of Environment '72" for the scheme, which now processes rubbish not only from Switzerland but from other European countries.

Mr Covic said: "We are interested in evaluating this system. We are concerned about the future of our waste disposal because of constant problems with refuse schemes and sites."

CS0: 5000

OECD REVIEW OF NEW ZEALAND ENVIRONMENTAL POLICY BACKED

Auckland THE NEW ZEALAND HERALD in English 17 Jun 81 p 16

[Excerpt]

Support for a wide range of environmental proposals has come from the Hauraki Gulf Maritime Park Board.

At its meeting yesterday the board endorsed most of a review of environmental policy in New Zealand compiled by the Organisation for Economic Co-operation and Development.

The board will send a submission on the review to the Environmental Council.

Proposals supported by the board include:

- The establishment of a central environmental agency to formulate Government policy, including a national conservation strategy.

- A merger between the

Environmental Council and the Nature Conservation Council to provide a stronger public advisory body to report to Parliament through the Minister for the Environment.

- The creation of more reserves, particularly in low-land areas.

- Amendments to the Mining Act, 1971.

- Protection of coastal and marine resources.

- Improved water quality and a revision of the water classification system.

- Administration to protect wild and scenic waters.

Much of the review is in line with the board's policy

of protecting natural resources while promoting recreation in the Hauraki Gulf but board members disagreed with some aspects.

Mr W. J. Willis said the review should propose a further amendment to the Mining Act, making mining subject to town and country planning procedures like every other land use.

The review omitted to discuss the impact of tourism on the environment and did not go far enough in outlining policies to protect marine and recreational values of water bodies.

CONSERVATION GROUPS RESOLVE DIFFERENCES OVER MERGER

Wellington THE EVENING POST in English 15 Jun '91 p 10

[Text]

New Zealand's largest conservation movement, the Royal Forest and Bird Protection Society, has averted — at least in the meantime — a serious split in its ranks over a proposal to merge with the Native Forest Action Council.

The split was averted on Saturday in a seven-and-a-half-hour meeting of the society's council, its 54-member ruling body.

The society leadership was divided over the merger proposal largely because of a stipulation by the Native Forest Action Council that one of its senior executives, Mr Guy Salmon, should become the society's director, the top paid position in the 33,000-strong society.

This stipulation caused grave concern to the society's two senior head office staff, secretary Mrs Olga Langford and national conservation officer Mr David Collingwood. Both had indicated earlier that they would not be prepared to

work with Mr Salmon.

The issue was resolved during an adjournment on Saturday when the society's president, Mr Tony Ellis, had talks with Mr Salmon, Mr Collingwood and Mrs Langford.

Mr Collingwood was offered a position as secretary-general, Mrs Langford the position of administrative director, and Mr Salmon the position of conservation or research director.

The NFAC then agreed to favour pursuing a merger proposal in which Mr Salmon would be offered a senior position within the society.

If this proposal proves acceptable to both the society and the NFAC, society members are to be given details before a decision is made at a subsequent meeting of the council.

Spoken to after the meeting, Mr Salmon said that although he would be happy to accept the position offered, the matter would have to be referred back to NFAC's executive which is to meet

next week.

Mr Collingwood said that in the new post of secretary-general he would have complete control. Asked if he would be able to work with Mr Salmon, he said: "It will be very exhilarating."

Under the original proposal, Mr Collingwood would have been squeezed out in favour of Mr Salmon.

Mrs Langford said she was being pressured and would have to think things through in the next three months.

"I was asked if I would consider staying on, but I've got to know now what the set-up is going to be," she said.

Mr Ellis, who said in a recent interview with the "Post" that personalities were the rocks on which the merger proposal could founder, said the way had now been cleared for a compromise that would please everybody.

ECOLOGY REPORT GIVES QUALIFIED NOD TO SYNTHETIC FUEL

Auckland THE NEW ZEALAND HERALD in English 10 Jun 81 p 3

[Text] The Commission for the Environment has—with some qualifications—endorsed the planned production of synthetic petrol as a worthwhile element of the Government's energy strategy.

In its audit of an environmental report on the proposed Taranaki synthetic gasoline plant, the commission rated compressed natural gas and methanol as preferable fuels on the grounds of efficiency and potential for reducing oil imports.

But the commission has recognised the strategic value of producing synthetic fuel and the short-term benefit it could provide by making available a fuel which could immediately be incorporated into the existing fuel distribution system.

The audit, which was published yesterday, brought a favourable response from the Synthetic Fuels Corporation.

The Corporation's chairman, Dr Colin Maiden, said that he believed the commission had taken a reasonably positive and balanced approach in suggesting environmental safeguards.

Of 14 recommendations in the audit, 24 were directed to the corporation; Dr Maiden said, and these were likely to be acceptable to the project sponsors "with a few reservations."

The commission found that the impact report prepared by the corporation was inadequate in some respects and that its own report suffered as a result.

It recommended tougher environmental protection measures than those proposed by the corporation—notably for limiting noise, which was also a criticism of the petraigas methanol project.

The commission recommended a cut of about 10 per cent in the suggested daytime noise level and that the noise level should be monitored in a way similar to that recommended by the Planning Tribunal for the methanol plant.

The commission's five-member audit group agreed that the project would have a wide environmental impact.

Potential

It was the second proposal to be handled under the National Development Act and was one of the biggest projects to be undertaken in New Zealand.

It was also potentially much more environmentally disruptive than the methanol plant to be built nearby.

The project would cause a rapid build-up of activity during construction and—although this would settle down to a more consistent pattern during operation—it would change the Motumui district and have long-term effects on north Taranaki.

But the audit group said that the project could be managed in such a way that some of the major impacts could be contained and be accepted by the community if recommendations in the audit were endorsed by the corporation and the Government.

A major drawback of the \$750 million project—which would use new technology developed by the Mobil corporation—was found to be its relatively low operating efficiency.

If efficiency was a primary consideration, the synthetic petrol would have to be rejected outright, the audit said.

Information provided in the environment report suggested that the overall efficiency of the plant would be 33 per cent, a significantly lower level than originally forecast by the Liquid Fuels Trust Board.

Calculations

The revised figure meant that the energy loss in methanol-to-gasoline was almost double that calculated earlier, and the new assessment highlighted the uncertainty which still surrounded the plant's likely performance.

"No such qualms need be felt about the methanol production part of the plant," the report said. "The gross thermal efficiency of the two

methanol plants associated with the project was assessed at 68 per cent."

The audit noted that methanol was itself a possible substitute for imported petrol and, in a 15 per cent blend with petrol, could be used in most petrol-engined vehicles with little modification.

It was calculated that a given quantity of gas would take a vehicle 96 kilometres if used as a blend, compared with only 53 kilometres if converted to synthetic petrol. (The same vehicle would travel 100 kilometres if the fuel were used as CNG.)

The audit recommended that the Government should emphasise the development of CNG and alcohol-based fuels.

Nearly 70 submissions were received from the public on the environment report—double the number for the methanol project—and "a surprising number" criticised the project as being either a misuse of gas resources or financially unsound.

Questioned

While recognising the Government's wish for urgency, the commission questioned whether the National Development Act should be applied before enough information was available about the technical aspects of the

project and its effect on the environment.

In his response to the audit, Dr Maiden said that the information gaps identified by the commission were the inevitable result of the urgency of the project and the need to proceed with designing the plant at the same time as assessing its effect on the environment.

Information in key areas was still being gathered and would be presented at the Planning Tribunal hearings in August.

Dr Maiden restated the arguments in favour of the synthetic petrol plant, saying:

- It was the main component in the plan to reach 50 per cent self-sufficiency by the mid-1990s.

- On their own, neither compressed natural gas nor industrial alcohol could achieve 50 per cent self-sufficiency as quickly as could be done by harnessing four fuels together — CNG, liquefied petroleum gas, synthetic petrol and the light crude oil from the Taranaki gasfields.

- The use of synthetic petrol still left open the possibility of oil discoveries, and more CNG, electric vehicles or alcohol fuels to increase self-sufficiency beyond 50 per cent.

END TO MINING ACT CLAUSE ON PROSPECTING LICENSES SEEN

Auckland THE NEW ZEALAND HERALD in English 11 Jun 81 p 3

[Excerpt] Proposed changes to the Mining Act soon to go before Parliament are likely to include an end to the controversial provision allowing automatic conversion of prospecting licences to mining licences.

But it is still unclear whether the Government will backdate the legislation to cover the hundreds of licence applications already lodged for strategic areas such as the Coromandel Peninsula.

The Minister of Energy, Mr Birch, gave the clearest outline yet of the planned legislation when he addressed the Counties Association conference in Auckland yesterday.

The Government is reviewing the Mining Act, 1971, and promising to take account of the fears of residents in rural areas affected by the spate of licence applications.

Among the chief concerns with the existing act are its provisions to override Town and Country Planning Act safeguards, and its clauses allowing prospecting licences to convert to mining licences with few rights of public appeal.

Separation

Mr Birch said yesterday that he expected the amending bill to be introduced to the House at the end of this month.

In the strongest hint yet on changes to the prospecting licence conversion issue, Mr Birch said: "Attention will

be given to the rights of the property owner and the separation of prospecting from mining applications."

Where mining might have a significant impact on land use, the bill would provide for environmental impact reports, planning tribunal hearings and the opportunity for community groups and affected parties to object.

However, Mr Birch was guarded on the question of whether the legislation would cover the many licence applications already lodged.

Backdating

Several months ago the Government MP for Hamil-

ton West, Mr Michael Minogue, said the review of the legislation would be "an exercise in futility" if existing applications were not covered by backdating the new bill or by some other means.

To a question yesterday from the conference floor on whether the bill would be backdated, Mr Birch said he could not give too many details because he did not have the consent of his caucus colleagues.

He said backdating the bill would be examined. So would the question of imposing new conditions on existing prospecting licence holders who apply for a mining licence.

ECOLOGY TEAM AUDITING PROPOSED NORTHLAND FORESTRY PORT

Impact on Roads Weighed

Auckland THE NEW ZEALAND HERALD in English 12 Jun 81 p 2

[Text]

Herald Corres Kaikohe

It was fortunate that there was plenty of time to co-ordinate development associated with setting up Northland's forestry industry before the product was ready, the assistant commissioner for the environment, Mr John Wendlekin, said at Kaikohe.

He was leading a group of five members of the environmental audit team

publicly discussing the regional impact of large-scale exotic forestry proposals to establish a forestry port at Marsden Pt and a railway link between Oakleigh and Marsden Pt.

Only 11 people had responded to the invitation to hear them.

Mr Wendlekin said that the audit report should be ready by the end of the month.

Another member of the audit team, Mr Frank Stewart, of the Ministry of Transport, said that the impact of forestry on roading in the north was certainly something the audit would consider. The possibility of extending the railway line further north looked unlikely.

Mr B. Carlin, an investigating officer for the Commission for the Environment,

said that much depended on the plans of the private companies.

The Mayor of Kaikohe, Mr Brian Thorburn, said that with only eight kilometres of road sealed in Northland last year, even if the port were established in 1982 there was hardly sufficient time to prepare roads for a heavy onslaught of logging trucks.

Regional Benefits Sought

Auckland THE NEW ZEALAND HERALD in English 16 Jun 81 p 2

[Text]

Herald Corres Whangarei

The Northland United Council wants to ensure that benefits from forestry are shared equally over the region.

In a submission to the environmental impact report on the proposal to establish Northland's forestry port at Marsden Pt, the council said

there was a danger that the benefits of a major regional installation would be felt only in and around the port.

The council said there was a need for a comprehensive economic assessment of the effects of the proposal. It should include costs and benefits to various areas of the region, the range and value of processing options

and employment implications.

More than 90 per cent of the burden of roading maintenance resulting from the additional traffic would fall on county roads.

The county councils feared large maintenance, construction and reconstruction bills with a rural rating system that was inadequate to finance such works.

MINING CONTAMINATION OF COROMANDEL STREAMS TO BE TESTED

Auckland THE NEW ZEALAND HERALD in English 10 Jun 81 p 3

[Text]

Press Assn Hamilton

Coromandel streams will be tested shortly to find if they can withstand toxic wastes from possible future mining operations.

The Minister of Science, Dr Shearer, said yesterday that DSIR chemists would analyse water samples for arsenic, cadmium, lead, copper and zinc to provide data on which to assess mining proposals.

Heavy metals from mining wastes had the potential to kill or contaminate the insects, fish and shellfish in Coromandel streams and estuaries, Dr Shearer said.

The Government had to be sure that the wastes were not excessive.

The tests are expected to take a year.

CS01 5000

LIAONING PROVINCE ENVIRONMENTAL PROTECTION EFFORTS REPORTED

Shenyang, Dalian Antipollution Drive

Shenyang Liaoning RIBAO in Chinese 9 May 81 p 2

[Text] Shenyang and Dalian in Liaoning Province are two highlight cities specified by the nation in the drive to clean up environmental pollution. Since the announcement of the nation's Environmental Protection Act, work on three-pollutant management and environmental protection in these two cities has progressed rapidly, with noteworthy results.

In the past year Shenyang city invested 52 million yuan in pollution treatment and completed 330 items in the work of pollution management. Last year 21 million tons of industrial waste water were processed, pollutants were reduced by 5,800 tons, 1.1 billion cubic meters of industrial waste gas were processed and the recycle recovery rate of industrial water increased 13 percent as compared to the previous year. The entire city planted 200,000 urban trees, 2,000 mu of forests and 280,000 square meters of grass lawn. The 28 pollution emission points of the Shenyang Refinery located in Tiexi Ward of the city were basically treated, industrial sewage decreased by 95 percent as compared to the past, and heavy metals and other hazardous pollutants in the sewage decreased 80 percent. The refinery also used sulphur dioxide, which used to be released into the atmosphere, in producing sulphuric acid and the annual production reached 110,000 tons.

In the past year Dalian city completed 410 antipollution measures, treated more than 400 million tons of industrial sewage, and reduced six major pollutants in water by more than 30 percent as compared to the previous year. The Dalian Steel Mill completed an acid waste water recovery facility that can recover per year 1,500 tons of regenerated acid and 3,400 tons of ferrous sulphate, and save 170,000 tons of water for a saving of 500,000 yuan. Due to this series of pollution management measures, the natural environment and air quality of the city have both improved a great deal. The natural precipitation of dust in the air is only half the level of last year, and the average content of sulphur dioxide and other hazardous gases has decreased 40 percent.

Chemical Plant Pollutant Control

Shenyang LIAONING RIBAO in Chinese 9 May 81 p 2

[Article by Yang Jizhu [2799 4949 2691]: "Shenyang Chemical Plant Successful in Treating Three Pollutants"]

[Text] What used to be barren land at the Shenyang Chemical Plant, after a general treatment of the "three pollutants," has now turned into green grass and trees and there are birds and flowers everywhere in the 10 li area of the plant.

The Shenyang Chemical Plant is a chlorine alkali plant with over 40 years of history. Along with continuous developments in production, waste water, waste gas and waste residue generated in the production process also increased many times, seriously polluting the environment. In the past few years, employees and workers of the plant completed 91 antipollution projects in one big surge. The emission level of hazardous gases such as chlorine gas and hydrochloric acid fumes was reduced from the previous 1.394 billion cubic meters per year to 3 million cubic meters per year; 99 percent of the waste gas is now treated. The 64 sewage discharge points in the plant have all undergone class 1 treatment. The 4,000 tons of waste residue the plant releases each year are also handled better. None of the 11 chimneys of the 31 furnaces at the plant releases black smoke. Twenty-one chemical materials can be recovered or produced from these waste materials, bringing in 1.3 million yuan for the nation every year.

Since the treatment of the three pollutants has been successful, the plant environment has also improved continuously. At the plant, 3,700 trees of 26 different varieties, including apricot and Beijing peach, 100,000 flowers, and 800 square meters of grass lawn have been planted, and the green area reaches 66,000 square meters. These trees and flowers not only cleanse the air but they also serve as monitors and detectors of environmental pollution. Every day the leaders of the plant look at the growth of the plants and flowers to see if there is any abnormal reaction before they go on to organizing and directing production. Noise is also under control at the plant. Little birds that had not been around in years now flock to the trees in the plant area and find their food and make their home.

Antipollution Efforts Urged

Shenyang LIAONING RIBAO in Chinese 9 May 81 p 2

[Text] Liaoning is an important industrial base of China. It is highly industrialized and has many cities and towns and a long coastline. Liaoning has a heavy responsibility to protect the environment.

Environmental pollution mainly comes from the waste gas, waste water, waste residue and noise generated in the industrial production process. As the degree of industrialization increases, the three pollutants increase correspondingly. If they are not treated vigorously, pollution of the environment will invariably increase also. For a long time the economic front was affected by the

"leftist" thinking and only production development was emphasized while treatment of the "three pollutants" was ignored. In many construction programs, once they came on line, great amounts of the "three pollutants" were released. As a result, before the existing pollution sources could be treated, new sources were produced and this caused a serious imbalance between production development and environmental protection. In the course of carrying out the national economic readjustment, we must make up the deficit in treating the "three pollutants" and do a good job of protecting the environment.

Liaoning is one of the provinces with serious pollution problems, and the nation has specified deadlines for a number of antipollution programs. The provincial People's Council, the Standing Committee of the provincial People's Congress and the provincial people's government have all placed great emphasis on the environment and have repeatedly urged that the nation's Environmental Protection Act be thoroughly carried out. Furthermore, based on the actual situation in Liaoning, a "Tentative Regulation on Assessing Fees and Fines for Releasing Pollutants" has been announced. Recently, the State Council adopted a decision "concerning stepping up environmental protection work during the period of national economic readjustment." We must carry out the nation's decisions thoroughly. Various local areas should promote them with great vigor, based on their local situation. The Environmental Protection Act must be followed conscientiously and the principle of "polluters responsible for cleaning up" must be insisted upon. The law must be carried out and obeyed, and violators must be prosecuted. Through promotion activities, the Environmental Protection Act should be made known to every citizen regardless of age so that a good trend of "everybody participates in treating pollution and everybody is responsible for protecting the environment" can be established.

Pollution control and environmental protection are vital issues touching upon the personal interests of the whole population. They are also an important aspect of building a high material and spiritual civilization. From the leaders down to the masses, a spirit of "it is honorable to protect the environment and it is shameful to damage the environment" should be established. Let everybody have the same goal and let everybody join forces in building a new socialist Liaoning with a pleasant environment:

Drinking Water Contamination Resolved

Shenyang LIAONING RIBAO in Chinese 9 May 81 p 2

[Article by Wang Jinrui [3769 6855 3843] and Jin Hongcai [7246 3163 2088]:
"Pollution of Water Supply Resolved"]

[Text] The Xinqiu open-pit mine in Fuxin and the Fuxin Municipal Water Supply Company joined forces in solving the pollution problem of water supply and provided clean drinking water for 30,000 residents.

After serious pollution by industrial waste water in recent years, water supply well No 3 in the Xinqiu area was no longer suitable for civilian use. Bringing in water from far away, however, would cost 300,000 yuan. On the other hand, while the Xiaowujia water supply well was not contaminated, it was used by

the Xinqiu open-pit mine for washing coal. Would it be possible to switch the contaminated civilian water supply for the clean mining water? The Xinqiu open-pit mine recognized the priority, overcame the temporary difficulties of switching the water supply and put the interest of the residents first. The Municipal Water Supply Company assigned special manpower to work full time, and the two sides reached the water exchange agreement very quickly.

In the process of water supply exchange, the Xinqiu open-pit mine voluntarily helped in removing dirt, digging ditches and laying pipes. The Xinqiu mine also spent almost 10,000 yuan to construct a disinfection chamber and to provide more pipelines. The Municipal Water Supply Company actively provided additional water pump motors, disinfection facilities and water meters for the exchange. With their joint efforts, it only took 2 weeks and 20,000 yuan to complete the water exchange engineering. By 17 April the water supply was officially resumed.

9698

CSO: 5000/4077

CHROMIUM IN WASTE WATER NOW UNDER CONTROL AT TAIYUAN PLANT

Taiyuan SHANXI RIBAO in Chinese 10 May 81 p 2

[Article by Guo Yanling [6753 1693 0109] and Xue Gaiyu [5641 2395 3768]: "Recovering Chromic Anhydride and Turning Harm into Profit, Taiyuan Machinery Plant Achieves Waste Water Chromium Content Below National Discharge Standard"]

[Text] The major source of pollution in Taiyuan city--Taiyuan Machinery Plant waste water containing chromium--is now under control. The chromium content of waste water discharged from this plant is now below the national discharge standard.

The Taiyuan Machinery Plant is the largest electroplating plant in Shanxi Province. This enterprise undertakes the largest volume of electroplating tasks, but it is also one of the important sources creating air and water pollution in the vicinity of Taiyuan city. This plant handles a variety of kinds of electroplating work, including zinc, copper, nickel, tin, copper-tin alloy, hard chromium, and ornamental chromium. Among these metals, six-valenced chromium is the most toxic and causes serious pollution problem. The chromium plating tank alone has a capacity of 12,000 liters and the total area which is chrome-plated annually reaches 2.2 million square meters, while 174 tons of waste water containing chromium are discharged daily. Every liter of waste water contains 150 mg of six-valenced chromium ions, which exceeds the national discharge standard more than 290 times.

During the past 2 years, under the national economic readjustment, this plant aggressively took up environmental protection work. Supported by the provincial and municipal Environmental Protection Bureaus and the provincial and municipal Second Light Industrial Office and Bureau, they have fully utilized the talents of the backbone technical personnel. They studied a number of plans for the treatment of waste water containing chromium and carried out small-scale experiments. From these experiments reliable technical data were gathered; the exchange capacity of the facility was determined; the anti-oxidation performance of the resins were verified; a counterflow bleaching and washing format was adopted; ion exchange and membrane evaporation were treated jointly; and a chromium recovery plan was formulated. After a tense period of construction and installation of the facility, the work was completed at the end of 1980. After a few months of practice, the recovery facility is operating normally, yielding good treatment results. The facility is capable of treating 250 tons of waste water containing chromium each day. The membrane evaporator is capable of concentrating dilute chromic acid solution from a concentration of 50 mg/liter to 300 mg/liter and the concentrated solution is returned to the chromium-plating tank.

The waste water after treatment is clear, transparent, odorless, and contains almost no chromium, well below the national discharge standard of 0.5 mg/liter. Now, each year 3 tons of chromic anhydride can be recovered at a value of more than 17,000 yuan, and 45,000 tons of water valued at 6,750 yuan can be saved. The sum of these two items comes to more than 23,000 yuan. Since the quality of water after treatment is so high, the quality of chrome-plating is also considerably improved.

Today, the concerned provincial and municipal departments are drawing up a plan which will make the Taiyuan Machinery Plant the electroplating center for the entire city of Taiyuan and will establish within the plant an environmental protection examination station for all the electroplating enterprises of the province. They are determined to implement conscientiously the spirit of the related documents made public by the State Council while the national economy is being readjusted: to strengthen the environmental protection work, to work cooperatively, to turn an electroplating plant which pollutes seriously into a clean, harmless advanced enterprise for civilized production.

9113

CSO: 5000/4072

ENVIRONMENTAL WORK CONFERENCE HELD IN TAIYUAN

Taiyuan SHANXI RIBAO in Chinese 27 May 81 p 1

[Text] How can one do a good job of environmental protection during the national economic readjustment? In order to answer this question, a provincewide work conference on environmental protection was recently held in Taiyuan with the permission of the provincial people's government.

Participants at the conference included comrades in charge of environmental protection in the construction commissions of cities and regions, the environmental protection bureau (sponsor), monitoring stations, commissions, departments and bureaus under the direct jurisdiction of the province, major plants and mines and enterprise units.

Representatives attending the conference passed a resolution to follow the relevant documents recently announced by the State Council. It was affirmed that during the period of national economic readjustment, environmental protection work must be thoroughly carried out under the party Central Committee policy of further readjustment in the economy and further political stability.

By combining the policies and measures of economic readjustment, the environmental protection work should be stepped up and efforts should be made to solve some conspicuous pollution problems. At the same time, efforts must be made to work on the ideological, administrative and organizational structure of the environmental protection departments, to increase the efficiency, to develop the spirit of serving the people and being responsible to the people in order to obtain new achievements.

On the basis of improving understanding, the conference participants also made preliminary plans for future environmental protection work in Shanxi. The consensus was that in order to step up the management of the environment, first we must rigorously prevent the creation of new pollution. The emphasis should be placed on air pollution prevention, and efforts should be made to solve some conspicuous problems, starting with the problems of burning coal.

9698

CSO: 5000/4077

PEOPLE'S REPUBLIC OF CHINA

BRIEFS

GUANGDONG DESALINIZATION EQUIPMENT--Guangzhou, 29 Jun (XINHUA)--A seawater desalinization plant has been installed on Yongxing Island in China's Xisha Islands. It is the first such plant ever installed on the island, has been in operation and is capable of producing 200 dun of freshwater daily. [Beijing XINHUA Domestic Service in Chinese 0021 GMT 29 Jun 81 OW]

YELLOW SEA OIL POLLUTION--Beijing, 6 Jul (XINHUA)--Pollution in the Yellow and Bohai Seas from the Shengli oil field, the oil refinery under the Qilu petrochemical corporation and the Huangdao oil terminal has been reduced through pollution control efforts, according to the Shanghai newspaper WEN HUI BAO. The paper cited the resurgence of jellyfish in Jiaozhou Bay on the Yellow Sea as evidence of improved oil-sewage treatment. Before 1979, the paper said, the three units dumped an annual average of 30 millions tons of oil polluted water into the seas. Since the establishment of new treatment facilities, WEN HUI BAO said, 94 per cent of the effluent from the Shengli oilfield is treated. In the past three years, the Qilu oil refinery has recycled 50,000 tons of crude oil from its waste water treatment installations. National standards for effluent are set at 10 millilitres of oil per discharged litre. The treatment installations in the Huangdao terminal now release waste water with an oil content of only five millilitres per litre. Pollution control efforts have also been redoubled in cities along the coast of the Yellow Sea, including Qingdao, one of China's major ports. [Text] [OW061236 Beijing XINHUA in English 1224 GMT 6 Jul 81]

CSO: 5000/2143

NOISE POLLUTION CAUSED BY MOTOR VEHICLES

Taipei THE CHINA POST in English 6 Jun 81 p 12

[Text] The noise in Taipei mostly comes from traffic, especially motorcycles, and unnecessary honking and engine roaring attribute the noise pollution in Taipei, stated Professor Huang Chien-chuan yesterday.

Having completed a noise control experimental program in Taipei, Prof Huang of Hygienic Education of the National Taiwan Normal University, declared his discoveries mentioned above during the 1981 World Environmental Science Conference held in Taipei yesterday.

Public Nuisance

He said that to most local residents, noise is regarded the most unbearable public nuisance. The next intolerable nuisance is air pollution. Water pollution ranks third.

"The improper handling of the engine and clutch of the motor vehicle will cause unbearable noise," Prof Huang pointed out.

Prof Huang said the noisiest area in Taipei is found at commercial district; the level of noise is lower at the residential areas and schools.

He further pointed out that the level of noise in the evening at the commercial district, especially the downtown area, is almost the same as in the daytime.

Tougher Problem

Owing to the lack of direct legislation [as published] inhibiting this major menace, he said, the problem seems to have grown tougher.

The professor said low-frequency noise produces little harm to human hearing abilities, but added that the noise still affects people mentally and psychologically.

Figures in the past three months have shown that the average noise level stood at 81 decibels (dB) at 9 a.m., 80 at 1 p.m., 81 at 5 p.m. and 79 at 10 p.m. Decibel is the unit to measure the level of sound, and a normal human voice is measured at about 50 dB.

Noise thus pollutes the environment not only in the daytime, but in the evening too.

No Honking

Since the noise pollution is mostly caused by motor vehicles, Prof Huang suggested that the authorities concerned to implement tougher measures against noise makers. Factories should be asked to instal noise-proof facilities, and drivers should be asked to drive in accordance with the traffic sign such as "Slow down and no horn in school area."

Hanging thick window curtains and installing thick glass can reduce noise. Planting trees can also help, he said.

The public, nonetheless, provides the main force to defeat the environmental threat, the professor said and added that the government should also use mass media to encourage the public not to make noise deliberately as well as promote public conscience.

CSO: 5200

BRIEFS

CROP CONTAMINATION--More than 70,000 hectares of Taiwan's rice crops were contaminated by waste water last year, resulting in a decrease of 6,800 tons in the rice output. The Provincial Water Conservancy Bureau said most of the pollutant waste water were from factories, animal husbandry, and households. The Bureau said it has instructed local water conservancy units to make efforts to improve the situation, such as asking the factories to improve facilities or move to other places. Meanwhile, Taiwan Sugar Corp said Friday that tens of thousands of hectares of farmland in western coastal region have been contaminated by salt water. Taisugar quoted a survey of National Chung-Hsing University as saying that about 29,000 hectares of farmland in Changhua, Yunlin, Chiayi, and Tainan Counties have been found to be "too salty." Once contaminated by salt water, the corporation said, it is very difficult to restore the productivity of the farmland. [Text] [Taipei THE CHINA POST in English 16 Jun 81 p 10]

CSO: 5200

FERTILIZER PLANT REPORTEDLY CAUSING AIR POLLUTION

Dar es Salaam DAILY NEWS in English 27 Jun 81 p 5

[Text] The Tanga Municipal Health Department has started an investigation on the fertilizer factory at Raskazone the fumes of which are reported to be a health hazard.

This was reported yesterday by the Tanga Regional Medical Officer, Dr. William Madundo, following complaints from residents near the factory that their families were often falling sick, apparently as a result of the polluted air by the factory.

This year's air pollution by the factory has been described by people who have been living there as the worst since the factory was built eleven years ago.

Ndugu Madundo said a report on the effects of the air pollution was being prepared by the Regional Medical Officer and would be ready in few days' time.

As a result of the air pollution, some residents are known to have left their homes. Others told Shihata they were looking for alternative accommodation elsewhere in town.

One high ranking government official said he had decided to shift to another house in New Nguvumali area because his children were always sick. Several others also complained that their children had been sick since the beginning of this year.

Shihata visited the area and found that about 75 per cent of food plants, including maize had withered, particularly those grown in the wind direction from the factory.

However, the General Manager of the Tanzania Fertilizer Company, Mr. R. M. Kraus, said yesterday lack of spare parts due to unavailability of foreign currency contributed to the state of affairs. He said although he was aware of the situation nothing could be done now.

CSO: 5000/5031

CENTRAL AUTHORITY TO RUN WATER SUPPLY

Nicosia CYPRUS MAIL in English 20 Jun 81 p 1

[Text] The big water development projects like the Paphos project, the Vassilikos-Pentaskinos and others will be administered by a Cyprus Water Authority.

This is revealed in a statement yesterday by the Ministry of Agriculture and Natural Resources which outlined the government's plans short, medium and long term to deal with the island's water problem, notably of Nicosia city and the newly developed area of Kokkinokhoria--the touristic and potato growing region in the southeast.

The House of Representatives has already started a debate about the water problems, tabled by the Akel deputies.

Speaking during the debate the General Secretary of the Left-wing EKA Farmers Union, Mr Chambis Michaelides, of the Akel front, suggested streamlining of the water legislation and the setting up of a Central Authority for Water Resources through which all water resources could be nationalised and properly distributed.

The Ministry of Agriculture explained that Nicosia needed 25,000 cubic metres of water a day during winter months and 40,000 cubic metres a day during summer months and present availability is 28,000 cubic metres of which 13,000 are provided from the occupied areas.

It was hoped, the Ministry said, that following representations by government through UN the supply from Sykhari village underground reservoir will start flowing soon.

The Ministry said the Vassilikos-Pentaskinos project will provide for Nicosia 15,000 cub. metres of water a day and this alleviate to a great extent the needs of Nicosia until the South Conveyor Scheme is completed which will cover the needs not only of Nicosia but of the other urban centres too until the year 2010.

The Vassilikos-Pentaskinos project will cost £16.5 million and work will start in 1982, so that by 1985 it is expected to be operational.

In the interim period a pipeline is being laid from the Khirokitia water treatment plant to Nicosia which will convey water from the Lefkara Dam and later from the Vassilikos-Pentaskinos project.

This pipeline will cost £3 million and is expected to be commissioned by the end of this year and will convey 5,000 cubic metres of water a day for Nicosia, until later when it will convey 15,000 cubic metres a day from the Vassilikos-Pentakinos project.

Another short term project is to convey water from the surpluses of the Yermasoya Dam, to serve both the Nicosia requirements as well as the touristic requirements of Paralimni, Ayia Napa and Larnaca.

These plans were considered more convenient and safe because the sources nearer to Nicosia seldom had surplus water to provide.

The South Conveyor scheme is expected to cost £100 million and will yield on average 55 million cubic metres of water a year, and will cover the needs of urban centres and rural areas until the year 2010.

After the final feasibility study is completed and finances are secured, construction will start and work is expected to be completed in six years time.

This project and other major water projects will be administered by a Central Government Authority, the Ministry said.

CSO: 5000/5544

CHEMICAL AIR SPRAYING OF FORESTS TO END

Helsinki UUSI SUOMI in Finnish 16 Jun 81 p 9

[Article: "Chemical Air Spraying to Cease"]

[Text] The air spraying of underbrush with herbicides was abandoned this summer due to heated polemics concerning this issue over the last few years.

However, the ban on air spraying does not extend to a ban on chemical herbicides in their entirety.

Thus the Central Forestry Board, TVL [Road and Water Construction Authority Civil Servants Union] as well as the Forestry Administration consider chemical herbicides to be necessary even if done by hand.

The TVL primarily uses lopping shears for clearing underbrush along the roads, but it is an ineffective and expensive procedure, states Chief Director Jouko Loikkanen.

"In opinion the sides of the roads could be sprayed at ground level since no one picks berries or flowers along the roads.

"Since the spraying of chemical herbicides is more effective than the mechanical procedure, it also becomes less expensive, keeps the sides of roads cleaner for a longer time, and increases traffic safety due to greater visibility," enumerates Loikkanen.

"Chemical Prevention Is Needed"

"In my opinion the spraying of chemical herbicides is unconditionally needed," states Forest Manager Matti Ruotsalainen.

Spraying at ground level does not spread the herbicides anywhere else except on the intended target.

"In Finland approximately 150,000 hectares are sprayed with herbicides annually. It is not such a large area that the berry crop would decrease perceptably," argues Ruotsalainen.

The berries may not be picked in the summer that they are sprayed , however, the area returns to normal by the following summer.

"If one thinks that everything that is not originally from nature is poison, then herbicides are a poison, but I do not consider these substances to be a poison when they are used correctly," states Ruotsalainen.

The cost of herbicide spraying depends on the amount of surface area covered by underbrush, but generally speaking mechanical prevention is the most expensive.

However, the procedures used for preventing the growth of underbrush cannot be evaluated merely according to their cost.

Spraying from the air costs approximately 160 markkas per hectare, chemical spraying at ground level costs 280 markkas, and mechanical prevention costs 480 markkas. The removal of stumps and roots costs approximately 550 markkas per hectare according to the statistics of the Central Forestry Board.

The Ministry of Agriculture and Forestry has for its part established a work group to study the economic significance of chemical prevention.

"The report was considered to be necessary since there has been much discussion about the effects and costs of various preventive procedures with respect to the productivity of tree stands," states General Manager Tapio Korpela of the Ministry of Agriculture and Forestry.

"The work group will conduct the study from an economic point of view, no position will be taken on questions concerning health," emphasizes Korpela.

10576

CSO: 5000/2140

EXPERT DISCUSSES INCREASING ACIDIFICATION OF WATERS

Helsinki HELSINGIN SANOMAT in Finnish 25 Jun 81 p 2

[Article by Antti Patila: "Acid Rains Are Threat to Finland's Lakes"]

[Text] The author is a candidate of agricultural and forestry sciences. He has researched certain lakes susceptible to acidification and changes in them in Southern Finland for a university dissertation.

The burning of fossil fuels releases sulphur and nitric oxides into the atmosphere. In combination with water they form homologous mineral acids and increase the acidity of rain. Acidification is most prevalent in those areas of Central Europe and North America where the use of oil and coal has been prevalent.

The area of acid rain, which extended in the 1960's to Southern Scandinavia, continued to spread to the north in the 1970's. In Finland the average pH-value of rain fluctuated between 5 and 6 in the beginning of the 1970's while toward the end of the same decade they clearly declined to a value of less than 5 in a large portion of the country. At the same time, the sulphur content of rain increased noticeably. In addition to substances being released into the atmosphere in Finland, it has been confirmed that compounds carried in through the atmosphere from faraway places contribute to the acidification of the rain.

The Effect of Lime

The effects of acid rain are most evident in areas in which the lime content of the rock and soil is low. In addition, in areas with a low lime content, such as in Fennoscandia, the amount of lime being dissolved into the water system from the soil is small. As a result of the low content of lime the ability of the soil and the water systems to neutralize acid rains is weak and environmental damage becomes evident.

In Central Europe, in areas where acidified compounds are released, the soil and water systems have a high lime content, and the damage caused by acidification does not appear to the same degree as in Scandinavia.

Barren, small-sized forest lakes, whose buffering ability is naturally low, are the most susceptible to acidification. Such types of lakes are common in Norway, Sweden, and Finland as well as in extensive areas of North America.

The most serious acidification damage to water systems has appeared in the southern portions of Norway and Sweden. There valuable seedlings and char stocks have been destroyed in several lakes and rivers when the pH-value dropped below 5.

The Situation in Finland

The reports concerning pH changes in the natural waters of Finland have been done primarily on water systems in their natural state or on converted water systems. In the systems the buffering ability of the water is, however, in general sufficient to neutralize acid increases occurring through the atmosphere. Acidification problems in Finland have been primarily local, such as in the sulphurous alum areas of Pohjanmaa or in areas containing industrial waste water.

Extensive research on the effects of acidified compounds spread through the atmosphere has not yet been done. However, the Water Authority has conducted studies on the acidification level of 20--30 barren forest lakes. In addition to this, the basic mapping of lakes conducted by the water districts also provides indications of changes in the situation of small water systems susceptible to acidification.

In order to evaluate the development of acidification, a rather fundamental nationwide study would be required. It is probable that Finland is not in an extraordinary position with respect to acidification and that the problem is already timely.

Translucent Water

Generally a water system becomes acidified without being noticed. As opposed to eutrophic lakes, acidic lakes do not exhibit a forceful increase in aquatic vegetation, muddyness due to algae growth, or dead fish as a result of a lack of oxygen.

A sign of acidification visible to the naked eye is transparency, which is measured by a transparency index. An increase in transparency, which can be several meters in depth, is primarily the result of the precipitation of humus colloids as well as a reduction of algae growth due to low pH-values.

An acidic environment is in itself unfavorable to several kinds of plants and organisms. Since, in addition to this, the nutritional content of acidic waters is low, the component structure of the basic producers of water -- the higher forms of aquatic vegetation (macrophytes) and plant plankton -- becomes simplified and production decreases.

The reduction of basic production, on the other hand, decreases the availability of nutrients for animal plankton and animal life living on the bottom. Changes in the quantity of the above-mentioned groups of animal life directly or indirectly affect the availability of nutrients for fish and subsequently their number and quality.

Also vegetation along the bottom of the water systems becomes simplified as acidification progresses. Aquatic vegetation, quillwort, and reed groups typical to barren lakes are replaced by mossy vegetation covering extensive portions of

the lake bottom. Due to its forceful ion exchange ability, this growth is able to bind ions, which are important for the livelihood of several organisms and also reduce the exchange of nutrients between the water and the alluvium along the bottom.

In addition, this mossy growth is unfavorable to several types of animal life along the bottom. It reduces the availability of nutrients for fish and also decreases the dispersion action of animal life along the bottom.

The acidification of the water systems also affects the actions of the most important decomposers -- bacteria and fungi -- in the aquatic ecosystem. The pH-optimum of bacteria is generally close to neutral, while, on the other hand, many fungi do very well even in an acidic environment. Fungi even take on a portion of the decomposing action of the bacteria as the pH-value of the water decreases.

Since the growth rate and the decomposition intensity of fungi is lower than that of bacteria, the decomposition activity of organic material is decreased. The consequences of this effect are seen as a definite increase in the layer of waste and the quantity of fungi mycelium at the bottom of acidified lakes.

Fish Supplies Decreasing

However, the most evident effect of acidification is the effect on the environment in which fish live. From the point of view of the fishing industry and the recreational use of water systems the most significant damage has occurred in the southern part of Norway where salmon supplies in several lakes and rivers has decreased -- and even completely disappeared in some places.

The acidification stress affecting fish can manifest itself in the death and malformation of the spawn, in changes in age structure and type as well as in the disappearance of certain species. Fish stocks can be destroyed completely as either a consequence of long-term acidification or as a result of a sudden pH shock, such as occurred in Lake Tovdal in Southern Norway during a sudden melting of the snow in the spring of 1975.

During reproductive and early growth stages fish are exceptionally sensitive to the effects of low pH-values. A sudden pH reduction brought about by the spring thawing of snow can be fateful particularly to spawning fish, pike, among others, even in such waters in which the summer pH-value is close to neutral.

In the low, muddy water lakes very common to Finland, in which there is an oxygen deficiency in the winter and spring, the whole fish stock can suffer. The reason for this is that the fish come up close to the surface under the ice where the oxygen content is greater and where impurities from melting snow accumulate and decrease the pH-value.

Complete Changes

Species most sensitive to acidification are fish related to the salmon and dace families. When the pH-value drops below 5, as frequently happens in the winter and spring in small forest lakes, the eggs and the offspring of these species can be damaged.

In planning the planting of fish of the types in question in waters sensitive to pH fluctuations, attention should also be given to the condition of the water in the winter and spring when determining water quality. It frequently happens that the species of fish that can best withstand the effects of acidification becomes the most prevalent as other species die in proportion to the acidification.

In addition to absolute numbers of fish, acidification can also change the age and type structure of individual species. A general phenomenon in acidic lakes is that eventually the fish population comprises a few large-sized fish belonging to older age groups. The reason for this "thinning effect" is apparently the fact that the low pH-value limits or prevents the development of new age groups. Subsequently the reduced number of fish has a greater food supply at its disposal and the size of individual fish increases.

However, it is quite difficult to determine the primary reason for damage to fish stock in acidified waters. Changes in the salt balance of fish spawn, an increase in the content of toxic metals, aluminum, and so on in acidified waters as well as a reduction of food plants and animals can together or separately result in the reduction of fish stock.

Neutralization

The damage to acidified lakes can be neutralized or reversed by spreading lime directly on the water or on the upstream drainage area of the water system. In lakes in which the pH-value is 4.5, 10-30 grams of limestone powder (CaCO_3) are needed per cubic meter of water if the intent is to raise the pH-value to 6-6.5. When spreading lime on the ground, the amounts needed are 10-fold so that the drainage water will be capable of neutralizing the lakes.

However, there are certain risks in neutralizing acidified lakes. In connection with the application of lime it has been observed that the toxicity of aluminum to fish increases even at "safe" pH-values (pH 6). The changed chemical conditions in the water and in the alluvium along the bottom can also increase the mercury content of the water and the accumulation of mercury in organisms.

In order to prevent the reacidification of lakes, the lime should be reapplied in intervals of 3-10 years depending on the retention time of the lake water. Over the long run the cost of maintaining lakes can become considerable.

10576

CSO: 5000/2140

BRIEFS

SOIL CONSERVATION LAW PASSED--The Diet is expecting an immediate proposal from the government for a law relating to the excavation of peat. The Diet approved a preliminary statement concerning this issue in the final approval of the gravel law on Tuesday. The approval of the gravel law released the MP's for a 3-month summer break. The fall session will begin on 25 September. During the interim complete renovation of the Diet chambers will be completed. The gravel law was adopted after several hours of discussion by a vote of 117 to 58. Twenty-four MP's were not present. The law was opposed by a little less than half of the Conservative Party's 46-member Diet faction, 27 members of the Center Party's Diet faction, the Christian League except for Artero Juhtamaa, and by Hagar Malm (Swedish Peoples Party). A group of Center Party MP's are currently on an official visit to the Soviet Union. The above-mentioned peat proposal was proposed by Conservative Party member Mauri Miettinen. In the proposal approved by a vote of 103 to 67 it is hoped that the Diet will adopt a peat extraction law, which will guarantee protection of the bogs and the purposeful use of peat. The content of the gravel law was nailed down in a quick vote just before Midsummer Day. Peat was dropped from the bill by a vote of 96 to 94. A machine vote concluded in a tie of 95 to 95. The issue was resolved by balloting. Another subject of controversy, the point concerning compensation was approved in a second vote of 101 to 90. A dozen Conservative Party members voted along with the leftwing and the LKP. [Liberal Peoples Party]. According to the law local municipalities will incur a redemption obligation along with compensation only in the event that the property owner is not able to use his land for agriculture and forestry, construction, or any other reasonable purpose that would produce an income. The gravel law or soil conservation law, as it is officially known, will be applied to the extraction of gravel, rock, sand, dirt, and clay. The extraction of these substances except for household use will require an official permit. The goal is to prevent harm to the environment. [Excerpts] [Helsinki HELSINGIN SANOMAT in Finnish 24 Jun 81 p 9] 10576

CSO: 5000/2140

REMEDY FOR GOLDEN HORN POLLUTION STRESSED

Istanbul DUNYA in Turkish 6 Jun 81 p 1

[Text] In a speech given at a symposium on the subject of the Golden Horn and arranged by the Turkish Environmental Protection and Reforestation Society, State Chairman Nimet Ozdes said that it is the duty of the government to save the Golden Horn for Istanbul and the world.

State Chairman Ozdes, in yesterday's speech at the symposium held to mark World Environment Day, noted that pollution of the seas, land, air, and environment bears vital importance in developed and developing countries and that it is the duty of those who come to power to protect the environment for all humankind. He said, "We will not close our eyes and allow the Golden Horn, which, in the eyes of foreigners, was paradise on earth and which went from extreme beauty to extreme pollution, to remain in this condition. After acquiring the necessary money and technology, we will solve the problem. It is our present-day obligation to save the Golden Horn for Istanbul and the world." In a speech given later at the symposium, Istanbul Governor Nevzat Ayaz stressed that the problem of the Golden Horn cannot be solved by the Istanbul provincial and municipal governments alone, but requires the assistance of the national government.

In the meantime, University of the Bosphorus President Prof Semih Tezcan, who explained at the symposium the work being carried out in regard to the Golden Horn, stated that the cleaning up of the Golden Horn and measures to prevent its pollution necessitate a great deal of money, but said that it is not true that the process will place a great burden, from a financial standpoint, on the state.

Dr Tezcan, speaking on the topic of the Golden Horn at the symposium arranged in conjunction with World Environment Day by the Turkish Environmental Protection and Reforestation Society and held at the Macka Faculty of Mining, said that various projects for the Golden Horn have been drawn up over the years, but that a global plan that would necessitate a series of improvements for the Golden Horn and its environs has not yet been set into motion. Tezcan went on, "A program drafted in 1977 set down in list form the steps needed to ameliorate conditions at the Golden Horn. This

program can be adopted and implemented in a manner such that it would not require great financial sacrifice or result in a great financial burden on the state as some assert. At a cost of only 500 liras a year per person living in the million residences in Istanbul alone, the Golden Horn would be able to return to its former splendor." Tezcan, who claimed that various plans for cleaning up the Golden Horn and the environment have been readied for years, but that nothing other than spouting empty words has been done, stated that now the government has become closely involved with the topic and that actual work that will be undertaken henceforth will produce results within a short time. Tezcan noted that sufficient land has been found in Gebze and Tuzla so that businesses in and around the Golden Horn can be moved there and that all that is necessary to transfer these businesses is to take a series of steps. Speaking on the program designed in 1977 to restore the Golden Horn, Tezcan said, in summary, "The articles of the 1977 draft dealing with the Golden Horn that has not been implemented to date are: 1. Locate a site for the businesses that are in and around the Golden Horn. At that time, Buyukcekmece Bay was considered as the new location. 2. Begin work on the project. 3. Determine which land will be expropriated. 4. Put in the sewage system. 5. Rectify conditions along the banks of the Golden Horn. 6. Build the Eyup Regional Park. 7. Plant trees and redesign open spaces."

11673

CSO: 5000/1

END

END OF

FICHE

DATE FILMED

MARCH 11, 1982